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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/596,043 | 12/21/2006 | Hassan Ihss | SC12815ET | 1126 |
| 23125 | 7590 | 03/03/2010 | EXAMINER | |
| FREESCALE SEMICONDUCTOR, INC. LAW DEPARTMENT 7700 WEST PARMER LANE MD:TX32/PL02 AUSTIN, TX 78729 | | | NGUYEN, HIEP | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2816 | |
| | | | NOTIFICATION DATE | DELIVERY MODE |
| | | | 03/03/2010 | ELECTRONIC |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USADOCKETING@FREESCALE.COM

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/596,043 | IHS, HASSAN | |
| | Examiner | Art Unit | |
| | HIEP NGUYEN | 2816 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 16 October 2009.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-8 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-8 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 26 May 2006 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>09-18-09</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

The amendment filed on 10-16-09 has been received and entered in the case. New ground of rejections necessitated by the amendment is set forth below.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Correction and /or clarification is required.

Regarding claim 1, the recitation “said continuous-time sigma-delta modulator being connected to said combiner to utilize said train of combined return-to-zero clock pulses as clock” is confusing because assume that figure 2 of the present application is the “continuous-time sigma-delta modulator” is read in figure 2 and the “train of combined return-to-zero clock” is signal (CLK_JF) of figure 5 of the application. The “train of combined return-to-zero clock” is signal (CLK_JF) is not seen to connected to the “continuous-time sigma-delta modulator”. The same rationale is applied to the recitation "wherein said continuous-time sigma-delta modulator comprises a digital-to-analogue converter module whose operation is responsive to said train of return-to-zero clock pulses" in claim 6.

Claims 3-5, 7 and 8 carry any rejection of claim 1 upon which they depend.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 2 are rejected under 35 U.S.C. 102 (b) as being anticipated by Kim et al. (US 6,307,412).

Regarding claim 1, figure 2, 3 and 4 Kim show an apparatus for converting between analogue and digital signals comprising:

a continuous-time sigma-delta modulator, not shown; and
clock pulse generator apparatus (figure 2) for generating a train of return-to zero clock pulses (CK) each having leading and trailing edges defining alternately an active clock phase and a non- active clock phase, said clock pulse generator apparatus comprising an input for receiving a train of first clock pulses (XCK) each having leading and trailing edges;

a delay module (40) for producing a train of delayed clock pulses (DXCK) presenting delayed edges whose timing relative to corresponding edges of said first clock pulses is defined by said delay module, and

a combiner (50, 60) for producing a said train of return-to-zero combined clock pulses (CK) presenting leading and trailing edges defined alternately by one of said delayed edges and said corresponding edges of said first clock pulses (XCK) so that the active clock phases of said return-to-zero clock pulses (CK) have widths defined by said delay module, the variability of said widths of said active clock phases being smaller than the variability of the positions of said leading and trailing edges of said-first clock pulses, and the widths of said non-active clock phases varying as a function of variation in the positions of said first clock pulses; said continuous-time sigma-delta modulator being “connected to said combiner” to utilize said train of combined return-to-zero clock pulses as clock.

Regarding claim 2, figure 3 of Kim shows that the delay module comprises at least a first series of cascaded, substantially identical delay elements for producing said train of delayed clock pulses with a delay defined by said first series of delay elements.

Allowable Subject Matter

Claims 3, 4, 5-8 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HIEP NGUYEN whose telephone number is (571)272-1752. The examiner can normally be reached on 8 AM-4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on 1988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tuan Lam/
Primary Examiner, Art Unit 2816
/HIEP NGUYEN/
Examiner, Art Unit 2816
02-25-10